**Calculating Density Worksheet #1**

1. One of our Lego blocks measures 12 cm x 10 cm x 2 cm. Its mass is 480 g. What is its density?
2. Another Lego block is 5 cm x 5 cm x 6 cm. Its mass is 300 g. What is its density?

1. A third Lego block is 2 cm x 4 cm x 8 cm. If it has the same density as the other blocks, what is its mass?

1. You have a rock with a volume of 15 cm3 and a mass of 45 g. What is its density?

1. You have a different rock with a volume of 30 cm3 and a mass of 60 g. What is its density?

1. In the previous two examples, which rock is heavier?
2. In questions #4 and #5, which rock has more density? What can you conclude about the molecules in this rock compared with the molecules of the other rock?
3. A golden colored cube is handed to you. The person wants you to buy it for $100, saying it is a gold nugget. You look up gold on a mineral table and read that its density is 19.3 g/cm3. You measure the cube and find that it is 2 cm on each side and its mass is 40 g. What is its density? Is it gold? Should you buy it?